I claim:

1. A magnetic resonance imaging (MRI) system, comprising:

a magnet assembly defining an imaging volume;

a shielded room surrounding the magnet assembly;

a light source outside of the shielded room;

at least one light projector within the room to direct illumination within the imaging volume; and

means for optically connecting the light source to the at least one light projector, said means extending through a wall of the shielded room.

2. The MRI system of claim 1, wherein said means comprises a plurality of optical fibers.

3. The MRI system of claim 2, wherein the plurality of optical fibers extend through the illuminators, and the illuminators supports the optical fibers.

4. The MRI system of claim 2, comprising a plurality of optical fibers in the form of at least one bundle.

5. The MRI system of claim 1, further comprising a light guide extending through the wall, wherein said means extends through the light guide.

6. The MRI system of claim 1, wherein the at least one light projector is flexible.

7. The MRI system of claim 6, wherein the at least one light projector comprises a plurality of segments, and at least one segment is movable with respect to an adjacent segment.

8. The MRI system of claim 7, wherein each movable segment comprises a first, rounded end and a second, recessed end for receiving the rounded end of an adjacent segment,

wherein the rounded end of one segment can move within the recessed end of the adjacent segment.

9. The MRI system of claim 1, wherein the at least one light projector is connected to the MRI assembly.

10. The MRI system of claim 9, wherein the at least one light projector is connected to the MRI assembly within the imaging volume.

11. The MRI system of claim 1, wherein the magnet assembly comprises:

a ferromagnetic frame; and

first and second opposing poles supported by the ferromagnetic frame, wherein the at least one light projector is coupled to one of the poles.

12. The MRI system of claim 11, further comprising a first canopy over the first pole, wherein the at least one light projector is connected to the first canopy.

13. The MRI system of claim 12, wherein the first canopy has at least one recessed portion and the at least one light projector is connected to the first canopy within the recessed portion.

14. The MRI system claim 12, wherein the means extends between the pole and the canopy to the at least one light projector.

15. The MRI system of claim 12, wherein the opposing poles are aligned along a vertical axis such that one of the poles is an upper pole and the other of the poles is a lower pole, wherein the at least one light projector is coupled to the upper pole.

16. The MRI system of claim 1, wherein the MRI system is an open MRI system.

17. The MRI system of claim 1, wherein the light source is an alternating current light source.

18. An open magnetic resonance imaging (MRI) system comprising:

a magnet assembly comprising:

a ferromagnetic frame;

first and second opposing ferromagnetic poles supported by the ferromagnetic frame; and

a first canopy over the first pole and a second canopy over the second pole, the first and second canopies defining an imaging volume therebetween;

the system further comprising:

a shielded room comprising at least one wall, wherein the magnet assembly is within the room;

a light source outside of the shielded room;

a plurality of optical fibers conveying light from the light source through a wall of the shielded room into the shielded room; and

a light projector connected to the first canopy at a first location;

wherein the optical fibers extend through the first canopy at a second location and out of the first canopy through the first location, into the light projector.

19. The open MRI system of claim 18, wherein the optical fibers extend from the first location to the second location, between the canopy and the first pole.

20. The open MRI system of claim 18, wherein the light projector is flexible.

21. The open MRI system of claim 20, wherein the light projector comprises a plurality of segments and at least one segment is movable with respect to an adjacent segment.

22. The open MRI system of claim 21, wherein each movable segment comprises a first, rounded end and a second, recessed end for receiving the rounded end of an adjacent

segment, wherein the rounded end of one segment can move within the recessed end of the adjacent segment.

23. The open MRI system of claim 18, wherein the light source is an alternating current light source.

24. The open MRI system of claim 18, wherein the opposing poles are aligned along a vertical axis such that one of the poles is an upper pole and the other of the poles is a lower pole, and the light projector is connected to the first canopy.

25. The open MRI system of claim 18, wherein the first canopy has at least one recessed portion and the light projector is connected to the first canopy within the recessed portion.

26. The open MRI system of claim 25, wherein the first canopy has two recessed portions and the system comprises at least one light projector connected to the first canopy within each recessed portion, at respective locations, each light projector supporting a plurality of optical fibers extending out of the first canopy and into each light projector at the respective locations.

27. The open MRI System of claim 18, comprising a plurality of light projectors connected to the first canopy, each light projector supporting a plurality of optical fibers extending out of the first canopy and into each light projector at a respective location.

28. A magnetic resonance imaging (MRI) system comprising:

a ferromagnetic frame;

first and second opposing ferromagnetic poles supported by the ferromagnetic frame;

a first canopy covering the first pole and a second canopy covering the second pole, the first and second canopies defining an imaging volume therebetween; and

a light projector connected to the first canopy.

29. The MRI system of claim 28, further comprising a light source optically coupled to the light projector.

30. The MRI system of claim 29, further comprising optical fibers optically coupling the light source to the light projector.

31. The MRI system of claim 30, wherein the optical fibers are in the form of at least one bundle.

32. The MRI system of claim 30, wherein the light projector supports a portion of the optical fibers.

33. The MRI system of claim 30, wherein the light projector is connected to the first canopy at a first location, the optical fibers enter the canopy at a second location and the optical fibers extend from the first location to the second location, to enter the light projector.

34. The MRI system of claim 33, comprising a plurality of light projectors connected to the canopy at a plurality of locations, wherein the optical fibers split within the canopy and exit the canopy to enter each light projector at each respective location.

35. The MRI system of claim 33, wherein the optical fibers extend from the first location to the second location between the first canopy and the first pole.

36. The MRI system of claim 28, comprising a plurality of light projectors connected to the first canopy.

37. The MRI system of claim 28, wherein the first canopy has a recessed portion and the light projector is connected to the canopy within the recessed portion.

38. The MRI system of claim 37, comprising a plurality of light projectors connected to the recessed portion.

39. The MRI system of claim 28, wherein the light projector is flexible.

40. The MRI system of claim 39, wherein the light projector comprises a plurality of segments, and at least one segment is movable with respect to an adjacent segment.

41. The MRI system of claim 40, wherein each movable segment comprises a first, rounded end and a second, recessed end for receiving the rounded end of an adjacent segment, and the rounded end of one segment can move within the recessed end of the adjacent segment.

42. A method of conducting a medical procedure comprising:

positioning a subject in an imaging volume of a magnetic resonance imaging (MRI) magnet assembly;

conducting a medical procedure on the subject;

conducting magnetic resonance imaging of the subject; and

illuminating the subject with an a light projector connected to the MRI magnet assembly.

43. The method of claim 42, comprising illuminating the subject with a light projector connected to a canopy covering a pole of the magnetic resonance imaging system.

44. The method of claim 42, wherein the MRI magnet assembly is within a shielded room, the method comprising:

illuminating the subject with a light projector optically coupled to a light source outside of the shielded room.

45. The method of claim 44, further comprising conveying light from the light source to the light projector, through the canopy.

46. The method of claim 45, comprising conveying the light from the light source to the light projector by optical fibers extending between the canopy and a pole of the MRI magnet assembly, to the light projector.

47. The method of claim 42, wherein the light projector is flexible, the method further comprising:

flexing the illuminators to aim illumination from the light projector onto a portion of the subject.

48. The method of claim 47, further comprising flexing the light projector to aim illumination from the light projector onto a canopy covering a pole of the MRI magnet assembly, to provide diffuse illumination in the imaging volume.